Facility Decommissioning Report and Phase II Environmental Site Assessment
American National Can Company
1001 New Ford Mill Road
Morrisville, Pennsylvania

August 18, 1997

Prepared for

American National Can Company
8770 West Bryn Mawr Avenue
Chicago, Illinois, 60631

CONTENTS

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

Levine·Fricke·Recon Inc. (LFR) has prepared this Facility Decommissioning and Phase II Environmental Site Assessment (ESA) Report to document decommissioning and site assessment activities conducted at the American National Can Company (ANC) site located at 1001 New Ford Mill Road in Morrisville, Pennsylvania ("the Site") between May 29 and August 26, 1997.

2.0 BACKGROUND

ANC currently leases the Site from USX Realty Development Company (USX). From 1968 through 1983, ANC manufactured steel cans at the Site; since 1984, the Site has been subleased to others for use as a warehouse.

We understand that ANC's lease is terminating and that the decommissioning and Phase II ESA activities were undertaken to satisfy USX's exit requirements. The scope of work for the decommissioning and assessment activities conforms to the requirements specified by USX in memorandums dated December 30, 1996, March 20, 1997, and April 30, 1997.

Our understanding of site conditions is based upon our review of a Phase I ESA report prepared by Merrit/Osborn, Inc., dated August 27, 1992; a letter prepared by Rust Environment & Infrastructure (Rust), dated November 25, 1996; and a site walk conducted by Gary Robinson from our Raritan New Jersey office with an industrial cleaning subcontractor on February 24, 1997. During the site walk, Mr. Robinson and the subcontractor inspected areas designated for cleanup and decommissioning.

3.0 PROJECT OBJECTIVE

The objective of the Phase II ESA was to evaluate potential environmental liabilities in specific areas at the Site and address facility cleanup and decommissioning issues identified by Merrit/Osborn, Inc. and USX during the Phase I ESA and subsequent site walks.

4.0 PROJECT SCOPE OF WORK

4.1 Decommissioning Activities

The scope of work included the following decommissioning activities:

- Reviewing Pennsylvania Department of Environmental Protection (PADEP) files and submitting a written request to the PADEP for closure of underground storage tanks (USTs) at the Site;
- Cleaning and painting stained walls in the Bulk Storage and Compound Rooms;
- Removing dried compound material from the floor of the Drum Storage and Compound Rooms;
- Removing approximately 500 feet of aboveground compound piping; and
- Disposing of miscellaneous wastes from the Site, including solid waste, oily liquid waste, and small quantities of miscellaneous hazardous wastes, pending Rineco approval.

4.2 Phase II ESA Activities

The scope of work included the following Phase II ESA activities:

- Reviewing background documents;
- Conducting tracer/dye tests on roof and bathroom drains to determine the location of corresponding septic systems and surface water outfalls;
- Sampling and analysis of sludge or wastewater from three septic or drainage systems;
- Soil sampling and analysis;
- Groundwater sampling and analysis;
- Potable water sampling and analysis;
- Sampling and analysis of suspected asbestos containing materials (ACM) identified during the Merrit/Osborn study;
- Sampling and analysis of fluid from the outside transformer;
- Inspection and evaluation of electrical capacitors for possible polychlorinated biphenyls (PCB) containing fluids; and
- Data evaluation and report preparation.

5.0 DECOMMISSIONING ACTIVITIES

The decommissioning activities described in this section were completed by TIER DE, Inc. between May 29, 1997 and August 30, 1997.

5.1 Bulk Storage and Compound Room

The floor and painted block walls in the Bulk Storage and Compound Rooms (Figure 1) were pressure washed to a height of approximately 5 feet and dried compound material was removed from the floors using a power floor scabbler. The resulting washwater and solid residues were containerized for subsequent disposal. After washing and drying, the block walls were painted to a height of approximately 5 feet.

Waste disposal information is summarized in Section [5.4] and waste disposal documentation will be provided to ANC following transport to Rineco in September 1997.

5.2 Drum Storage Area

Dried compound was removed from the floor of the Drum Storage Room (Figure 1) using a power floor scabbler. The resulting solid residues were containerized for subsequent disposal.

Waste disposal information is summarized in Section [5.4] and waste disposal documentation will be provided to ANC following transport to Rineco in September 1997.

5.3 Aboveground Compound Piping and Vent Pipe

Approximately 500 feet of 4-inch-diameter steel aboveground compound piping was removed from the overhead piping rack. The piping rack runs north to south in the main plant area, located immediately east of the shop and office section of the building.

The following procedure was used to remove the piping:

- The pipe was purged with nitrogen and monitored with an oxygen/LEL meter;
- The pipe was cut into sections approximately 6 feet in length using a reciprocating saw;
- The sections of pipe were removed and lowered to the ground using a scissors lift;
- The piping was cleaned out using a fabric swab and push rod/plunger;

- The tank-end compound removed from the piping was collected in drums and staged on-site for characterization and disposal; and

- The piping was disposed of as scrap metal since little residue remained in the pipe and volatilization of residual hexane in the compound residue rendered the material non-flammable.

In addition to the aboveground piping, two former aboveground storage tank vent pipes with flame arrestors were removed from the ceiling of the Compound Room.

Waste disposal information is summarized in Section [5.4] and waste disposal documentation will be provided to ANC following transport to Rineco in September 1997.

5.4 General Cleanup and Waste Disposal

General cleanup of the facility included the following activities:

- Removal of wooden pallets and associated debris from the northern end of the eastern truck yard.

- Removal of metal/wooden pallets, metal shelving, and miscellaneous debris from outside the northeast corner of the building.

- Cleaning out the trash compactor located on the east side of the building.

- Removing debris scattered on the eastern side of the eastern truck yard.

- Removing debris, including several tires, a refrigerator, and a large wooden spool, from the southern side of the building.

- Removing rusted drums, scrap metal, and light fixtures from the outside drum storage pad.

- Collecting liquid waste including 2 carboys of acid, several pails of hydraulic/lube oil, oily water, and rain water into drums.

The quantities and disposal locations for the waste generated during cleanup and decommissioning activities is presented in the following table:

WASTE DESCRIPTION	QUANTITY	DISPOSAL LOCATION
Recyclable wooden pallets	6 tons	American Wood Recyclers
Solid waste (wooden pallets, non-recyclable metal items, misc. debris)	16.25 tons	Grows Landfill
Recycled metal (aboveground piping, pallet pipe frames, shelving, etc.)	7.7 tons	Tube City
Freon from refrigerator	1 lb. 6 oz.	Weyhmiller HIG & A/C
Tires	5	Scrap Tire Disposal
Acidic liquid (2 carboys from the drum storage pad)	(2) 30-gallon containers	Rineco
Pipe Coating (flammable compound removed from aboveground piping)	(4) 55-gallon drums	Rineco
Washwater/rainwater (from cleaning the Compound and Bulk Storage Rooms and drums of oily water located outside building)	(3) 55-gallon drums	Rineco
Oil (consolidation of lube oils found in pails throughout the facility)	(1) 55-gallon drum	Rineco
Unknown liquid (container of liquid labeled as containing chromium)	(1) 55-gallon drum	Rineco
Dried coating material and floor sweepings (sweepings from the Drum Storage, Compound, and Bulk Storage Rooms)	(1) 55-gallon drum	Rineco
Light ballasts suspect for containing PCB fluid (from light fixtures on outside drum storage pad)	(1) gallon bucket	Rineco

Disposal documentation for the solid waste and debris is included in Appendix E. At the time of this report, the wastes designated for disposal by Rineco are scheduled for removal from the site in September 1997, following completion of the acceptance approval process. Disposal documentation will be provided under separate cover.

6.0 PHASE II ESA ACTIVITIES

6.1 Tracer/Dye Tests

Five tracer/dye tests were conducted on the roof and bathroom drains between May 29 and June 5, 1997. Each test consisted of flushing water and a non-toxic colored dye through the drain and inspecting five potential outfall points for the presence of dye. The potential outfall points included the front and rear septic systems, roof drain outfalls Nos. 1 and 2, and the unidentified manhole located near the outside transformer (Figure 1). A description of the dye injection points (Figure 2) and observed results are provided in the following table:

TEST ID	LOCATION/DESCRIPTION	OBSERVED OUTFALL POINT
T-1	Roof drain in the southeast corner of the main building (upper tier roof)	Roof drain outfall No. 1
T-2	Toilet in the rear trucker's bathroom	Rear septic tank
T-3	Roof drain in the drum storage room	Roof drain outfall No. 2
T-4	Sink in the men's bathroom located off of the main office area	Front septic tanks
T-5	Roof drain in the southeast corner of the building adjacent to the locker rooms (lower tier roof)	Roof drain outfall No. 1

Based on these results, it appears that rainwater from both the main roof (upper tier) and offices roof (lower tier) is directed to roof drain outfall No. 1 located in the northeast corner of the property (Figure 1). The roof drain pipes drop down through the facility and apparently tie into a sub-slab piping system. The drains are accessible from the plant floor through clean-out ports which are located just in front of the point where the drain pipe penetrates the plant floor. Two main sub-slab drain pipes apparently service the northern and southern ends of the facility. These two drain pipes tie together in a manhole located in a grassy area near the eastern side of the facility. From this manhole, a 14-inch pipe directs the roof drain water to an outfall located in the northeast corner of the Site. The inferred configuration of the roof drain system is shown on Figure 1.

- The rainwater from the Drum Storage room roof drain discharges to roof drain outfall No. 2. Roof drain outfall No. 2 consists of a 4-inch pipe that discharges to the ground surface at the south end of the drum storage pad.

- The rear (eastern) septic tank apparently services the trucker's bathroom. It was not determined whether the rear septic tank discharges to a leach field.

- The front septic system apparently services the bathrooms and locker rooms in the front (western) part of the building. The apparent flow through the front septic system is shown on Figure 1. The effluent from the front septic tanks apparently discharges to a leach field.

- The tracer/dye tests were inconclusive in determining the source(s) of water discharged to the manhole located near the outside transformer.

6.2 Sample Collection and Analysis

The site assessment included collection and analysis of samples from various areas of environmental concern identified during previous studies and site walks. The sampling and analysis procedures are summarized in the following table:

LOCATION	SAMPLE ID(s)	DEPTH INTERVAL	DATE SAMPLED	MATRIX	COLLECTION METHOD	ANALYSIS (EPA TEST METHOD)
Front septic system (manholes 1,2, 3, and 4)	SEP 1/2 SEP 3/4	N/A	6/5/97	Sludge	Hand auger; each sample composited from two manholes	VOCs (8240) SVOCs (8270) RCRA metals Metals (TCLP)
Manhole near transformer (manhole 6)	TR-MH	N/A	6/5/97	Sludge	Hand auger grab sample	VOCs (8240) SVOCs (8270) RCRA metals Metals (TCLP)
Rear septic system (manhole 5)	SEP-5	N/A	6/6/97	Wastewater	Disposable bailer grab sample	VOCs (624) SVOCs (625) RCRA metals
Front loading dock	SS-1 SS-2 SS-3	0'-2' 0'-2' 0'-2'	6/6/97	Soil	Shovel, post hole digger grab samples	VOCs (8240) SVOCs (8270) RCRA metals TPH (418.1) pH
Roof drain outfall No. 1	SS-7	0'-1.5'	6/6/97	Soil	Shovel grab sample	VOCs (8240) SVOCs (8270) RCRA metals Metals (TCLP)
Eastern fence line	SS-4 SS-5 SS-6	0'-1.5' 0'-1.5' 0'-1.5'	6/6/97	Soil	Shovel grab samples	VOCs (8240) SVOCs (8270) RCRA metals
Unvegetated area near roof drain outfall no. 1	SS-8	0-1.5'	6/6/97	Soil	Shovel; composite of two samples	VOCs (8240) SVOCs (8270) RCRA metals
Soil borings along eastern side of bldg.	SB-1-1 SB-2-3 SB-3-5 SB-4-3	0'-2' 4'-6' 8'-10' 4'-6'	6/17/97	Soil	Split spoon sampler from discrete depth intervals	VOCs (8240) SVOCs (8270)
30' deep groundwater well at south end of drum	GW-Well	N/A	7/30/97	Ground-water	Peristaltic pump with disposable poly tubing. Purged one well	VOCs (624) SVOCs (625) RCRA metals

LOCATION	SAMPLE ID(s)	DEPTH INTERVAL	DATE SAMPLED	MATRIX	COLLECTION METHOD	ANALYSIS (EPA TEST METHOD)
storage pad					volume.	
Potable water supply from men's bathroom tap	Men's Bathroom Tap	N/A	6/19/97	Potable Water	Ran tap for 5 minutes; collected sample from tap.	Total Hardness Nitrates, Copper, Lead, Chlorides Sulfates, Alkalinity, TSS, Sp. Conductance
Outside Transformer	TRANS-1	N/A	5/29/97	Fluid/Oil	Sampling Port	PCBs

6.2.1 Sample Collection

Soil and sludge sampling equipment, including a hand auger, shovel, post-hole digger, and split-spoon sampler, were washed in a mild detergent solution and rinsed with tap water and deionized water prior to sampling. Water samples were either collected directly from taps or sample ports, or using disposable bailers or polyethylene tubing.

Soil, sludge, wastewater, and groundwater samples were labeled, stored on ice, and shipped by overnight carrier to Aqua Air Analytical laboratory of Weymouth, Massachusetts for chemical analysis. A potable water sample was shipped by overnight carrier to Lancaster Laboratories of Lancaster, Pennsylvania for analysis. The transformer fluid sample was delivered to Hydro-Analysis Associates, Inc. of Kutztown, Pennsylvania for analysis. All samples were collected, handled, and delivered to the respective analytical laboratories using standard quality control/quality assurance procedures for environmental samples, including chain-of-custody tracking. Chain-of-custody forms and laboratory reports are provided in Appendix A.

Samples collected for metals analysis were first analyzed for total RCRA metals. If one or more of the target metals exceeded 20 times its RCRA Characteristic Toxicity Standard, the sample was reanalyzed using the Toxicity Characteristic Leaching Procedure (TCLP) for characterizing hazardous waste. The factor of 20 was used because the TCLP methodology effectively dilutes the sample by a factor of 20, so samples must contain at least 20 times the Toxicity Characteristic Standard before the standard will be exceeded using the TCLP methodology.

Figure 2 shows the sampling locations.

6.2.2 Analysis Results

6.2.2.1 Front Septic System

The front septic system apparently accepts wastewater from the bathrooms and locker rooms located at the front (western) side of the building. The system consists of three concrete tanks (manholes 1, 2 and 3) which measure approximately 8 feet deep by 6 feet in diameter. Manhole 4 provides access to the discharge piping. The tanks are

connected in series and the flow is from the south (manhole 1) to the north (manhole 4). The system effluent apparently discharges to a septic leach field. Two composite samples (SEP 1/2 and SEP 3/4) were collected from the front septic system.

Analysis results indicate that the sludge contained total concentrations of arsenic, barium, cadmium, chromium, lead, mercury, and silver exceeding the RCRA Toxicity Characteristic Standards. Total concentrations of chromium and lead exceeded 20 times the RCRA Toxicity Characteristic Standard. Reanalysis of the samples using the TCLP method indicates that concentrations of RCRA metals are below the Toxicity Characteristic Standard, and thus the sludge is not a characteristic hazardous waste. In addition to the metals, relatively low concentrations of various VOCs and SVOCs were detected in the sludge samples.

Arsenic, barium, cadmium, chromium, acetone, and naphthalene concentrations exceeded Pennsylvania's "Land Recycling and Environmental Remediation Standards Act - Act II" (Act II) soil to groundwater standards in one or both samples collected from the front septic system.

The source of the detected constituents was not determined, but since the concentrations were significantly above the Act II soil to groundwater standards, the sludge may be considered a potential source of groundwater contamination.

Chain-of-custody forms and laboratory reports are provided in Appendix A. Analytical results for samples collected from the front septic system are summarized in Table 1.

6.2.2.2 Rear Septic System

The rear septic system apparently accepts wastewater from the trucker's bathroom located on the rear (eastern) side of the building. The system consists of one concrete tank (manhole 5) which measures approximately 8 feet deep by 6 feet in diameter. The tank contained approximately 4 feet of raw sewage. It was not determined whether this septic tank is connected to a leach field. After an unsuccessful attempt to collect a sludge sample, one wastewater sample (SEP-5) was collected from the rear septic system.

Analysis results indicate that the wastewater sample did not contain VOCs, SVOCs, or metals at concentrations exceeding RCRA Toxicity Characteristic Standards, so the wastewater sample collected from the rear septic system was not reanalyzed using the TCLP method. The wastewater sample contained concentrations of chlorobenzene, bis(2-ethylhexyl)phthalate, and cadmium slightly exceeding the Act II groundwater ingestion standards.

Chain-of-custody forms and laboratory reports are provided in Appendix A. Analytical results for samples collected from the rear septic system are summarized in Table 2.

6.2.2.3 Unidentified Manhole (Near Transformer)

The tracer/dye tests were inconclusive in determining the origin of water discharged to the manhole located near the outside transformer (manhole 6, Figure 2). This manhole consists of one concrete tank which measures approximately 8 feet deep by 6 feet in diameter. The tank contained approximately 3 feet of water and 1 foot of sludge. The sludge had a strong petroleum odor. The water level in the tank was too high to inspect for the presence of influent and effluent piping. One sample (TR-MH) was collected from the manhole located near the transformer.

Analysis results indicate that the sludge sample collected from the unidentified manhole contained total concentrations of arsenic, barium, cadmium, chromium, lead, and mercury exceeding RCRA Toxicity Characteristic Standards. Total concentrations of chromium and lead exceeded 20 times the RCRA Toxicity Characteristic Standard. Reanalysis of the samples using the TCLP method indicated that concentrations of RCRA metals are below the Toxicity Characteristic Standard, and thus the sludge is not a characteristic hazardous waste. In addition to the metals, 417 parts per million (ppm) and 2,460 ppm, respectively, of ethylbenzene and xylenes were detected in the sludge sample.

Arsenic, barium, cadmium, chromium, ethylbenzene, xylenes, and naphthalene concentrations in the sample collected from the manhole located near the transformer exceeded Act II soil to groundwater standards.

The source of the detected constituents was not determined, but since the concentrations were significantly above the Act II soil to groundwater standards, the sludge may be considered a potential source of groundwater contamination.

Chain-of-custody forms and laboratory reports are provided in Appendix A. Analytical results for the sample collected from the unidentified manhole are summarized in Table 1.

6.2.2.4 Front Loading Dock

Three surface soil sample (SS-1, SS-2, and SS-3) were collected from the grassy and vegetated area located immediately south of the driveway that provides access to the front loading dock and drum storage pad (Figure 2).

Slightly elevated concentrations of various SVOCs, including isophorone, dimethyl phthalate, benzo (a) anthracene, benzo (b) fluoranthene, benzo (a) pyrene, indeno (1,2,3-cd) pyrene, and dibenzo (a,h) anthracene, were detected in the surface soil samples collected from the front loading dock area. In general, the detected concentrations exceeded Act II non-residential ingestion standards. These contaminants are often associated with construction fill and may also be associated with industrial activities in the general vicinity of the site and therefore, may represent background conditions.

Slightly elevated concentrations of arsenic and chromium were also detected in the samples, but did not exceed 20 times the RCRA Toxicity Characteristic Standard. Arsenic, cadmium, and chromium concentrations detected in one or more samples exceeded Act II soil to groundwater standards.

Chain-of-custody forms and laboratory reports are provided in Appendix A. Analytical results for the surface soil samples collected from the front loading dock area are summarized in Table 3.

6.2.2.5 Roof Drain Outfall

One surface soil sample (SS-7) was collected from the downgradient edge of the ponded area at roof drain outfall No. 1 (Figure 2).

Analysis results indicate that the surface soil sample contained total concentrations of arsenic, cadmium, chromium, and selenium exceeding RCRA Toxicity Characteristic Standards and Act II soil to groundwater standards, but only chromium exceeded 20 times the RCRA Toxicity Characteristic Standard. The source of the detected constituents was not determined, but since the concentrations were significantly above the Act II soil to groundwater standards, the soil may be considered a potential source of groundwater contamination.

Chain-of-custody forms and laboratory reports are provided in Appendix A. Analytical results for the sample collected from roof drain outfall No. 1 are summarized in Table 4.

6.2.2.5 Eastern Fence Line

Three surface soil samples (SS-4, SS-5, and SS-6) were collected from along the eastern fence line (Figure 2). In addition, one composite surface soil sample (SS-8) was collected from two unvegetated areas located immediately north and northwest of roof drain outfall No. 1. The unvegetated areas appeared to be recently covered with fill material containing miscellaneous construction debris.

Arsenic, cadmium, and chromium concentrations in one or more samples collected from the rear fence line exceeded Act II soil to groundwater standards. The highest concentrations were detected in sample SS-8, which was collected from the two unvegetated areas. This sample appeared to be fill material containing pieces of rebar and other construction materials. Sample SS-8 also contained low concentrations of SVOCs which are often associated with construction fill and may also be associated with industrial activities in the general vicinity of the site.

Chain-of-custody forms and laboratory reports are provided in Appendix A. Analytical results for the sample collected from the rear fence line area are summarized in Table 4.

6.2.2.6 Rear Truck Yard

Four soil borings were drilled along the eastern side of the building in and adjacent to the rear truck yard. Soil boring SB-1 was located in a stained soil area at the northeast corner of the building; the remaining three borings were randomly located along the eastern side of the building (Figure 2).

Each soil boring was advanced to a total depth of 10 feet below ground surface using a hollow-stem auger drill rig. Split-spoon samples were collected at continuous depth intervals and logged in the field by an LFR field geologist. The samples were screened for VOCs using a photoionization detector (PID). A sample from the depth interval which exhibited the highest PID reading was collected for laboratory analysis.

Chain-of-custody forms and laboratory reports are provided in Appendix A. Analytical results for the samples collected from the rear truck yard are summarized in Table 5. Drilling logs, which include the PID results, are provided in Appendix B.

Concentrations of SVOCs and VOCs in the surface sample collected from boring SB-1 did not exceed Act II soil to groundwater standards. SB-1 was located outside the northeast corner of the building and was advanced through a stained soil area, apparently the result of surface oil spills. PID readings decreased with depth, indicating limited migration to the subsurface.

SVOCs and VOCs detected in the samples collected from SB-2, SB-3 and SB-4 did not exceed Act II soil to groundwater standards.

6.2.2.7 Groundwater Well

One groundwater sample (GW-Well) was collected at a depth of 30 feet from a 6-inch-diameter groundwater well located by the southern end of the drum storage pad (Figure 2). The sample was collected for preliminary screening of groundwater quality. Approximately one well volume of water was purged from the well prior to sampling.

Concentrations of VOCs, SVOCs, and metals detected in the groundwater sample did not exceed Act II groundwater standards.

Chain-of-custody forms and laboratory reports are provided in Appendix A. Analytical results for the sample collected from the groundwater well are summarized in Table 2.

6.2.2.8 Potable Water Supply

One potable water sample was collected from the men's room tap (Figure 2). Analysis results indicate that the potable water meets the applicable Pennsylvania drinking water standards for the parameters tested.

Chain-of-custody forms and laboratory reports are provided in Appendix A.

6.2.2.9 Asbestos

LFR subcontracted Legend Industries to collect and analyze selected samples of suspected ACM identified by Merrit/Osborn during the Phase I ESA or by USX. However, the roof felt material, identified as suspect for asbestos by Merrit/Osborn, was not sampled to protect the integrity of the roof.

Analysis results, recommended maintenance actions, and a management plan for dealing with ACM are included in Legend Industries report (Appendix C).

The following table presents analysis results and recommended actions for ACM at the Site:

ID #	SAMPLE DESCRIPTION	ANALYSIS RESULTS	RECOMMENDED ACTION
1	Roof cooling tower packing material	ACM - 75% (Legend)	Remove and dispose of the identified material.
2	Floor tile in main entrance hallway, south of Eastern America's offices.	ACM - 2.8% (Rust) NON ACM - 0.3% (Legend)	Remove damaged tile. Address future use through Management Plan.
3	Mastic from sample #2	NON ACM - ND (Legend)	No action required.
4	Orange strip of floor tile from janitors room near Eastern America's offices	ACM - 3.8% (Legend)	Remove damaged tile. Address future use through Management Plan.
4A	Mastic from 4	NON-ACM - ND (Legend)	No action required.
5	Marble floor tile from Litho Office	NON-ACM - ND (Legend)	No action required.
6	Mastic from 5	NON-ACM - ND (Legend)	No action required.
7	12"x 12" black marble floor tile from Litho Office	NON-ACM - ND (Legend)	No action required.
8	Mastic from 7	NON-ACM - ND (Legend)	No action required.
9	Mud skim coat from potable water valves/ fittings SE corner of building	ACM - 4.5% (Legend)	Repair damaged material and encapsulate. Address future use through Management Plan.
10	Insulation elbow on potable water line SE corner of building	ACM - 6.0% (Legend)	Identify all insulation elbows of similar type. Repair damaged material and encapsulate. Address future use through Management Plan.
11	Insulation elbow on roof drain piping NW corner of building	ACM - 5.0% (Legend)	Identify all insulation elbows of similar type. Repair damaged material and encapsulate. Address future use through Management Plan.
12	12"x 12" brown marble floor tile from coat room off front entrance	NON-ACM - ND (Legend)	No action required.

ID #	SAMPLE DESCRIPTION	ANALYSIS RESULTS	RECOMMENDED ACTION
13	Mastic from #12	NON-ACM - ND (Legend)	No action required.
14	2'x 4' ceiling tile near front entrance	NON-ACM - ND (Legend)	No action required.

Notes: 1. "Rust" indicates reported by Rust (11/96)
2. "Legend" indicates reported by Legend Industries (8/97)
3. "ND" indicates none detected.

6.2.2.10 Outside Transformer

One transformer fluid sample was collected from the outside transformer through a sampling port located at the base of the unit (Figure 1).

Analysis results of the transformer fluid indicated that the fluid does not contain PCBs as defined by the Toxic Substance and Control Act.

Chain-of-custody forms and laboratory reports are provided in Appendix A.

6.2.2.11 Electrical Capacitors

LFR identified 14 capacitors at the facility, including 13 Westinghouse Type FP Indoor Capacitors and one unidentified type. Nine of the capacitors are located at the elevated electrical substation on the southern end of the building and five of the capacitors are located in the utilities room area on the western side of the building. Two of the Westinghouse Type FP capacitors are marked as containing PCB fluid. Westinghouse indicated that the other Type FP capacitors at the Site likely contain PCB fluid.

6.2.2.12 USTs

LFR performed a file review at the PADEP and obtained a copy of the Underground Storage Tank closure report that was submitted to the PADEP for review on July 28, 1995. In a letter dated August 11, 1995, PADEP estimated that their review would require approximately 140 days. Sarah Tubbs, with the PADEP Storage Tank Section responsible for Bucks County Pennsylvania, indicated on August 21, 1997 that the PADEP is reviewing closure reports in the order that they were received and that the report for the subject site will not be reviewed for many months. LFR has sent a letter to PADEP requesting their review of the closure report. The closure report and letter requesting PADEP's review are provided in Appendix D.

7.0 SUMMARY

LFR has completed decommissioning and Phase II ESA activities at the ANC facility, located at 1001 New Ford Mill Road in Morrisville, Pennsylvania. Key findings of the activities are summarized below.

- With the exception of one roof drain located in the Drum Storage room, the remaining roof drains apparently discharge to roof drain outfall No. 1 located in the northeast corner of the Site. The Drum Storage room roof drain discharges onto the ground at the southern end of the drum storage pad.

- Concentrations of various RCRA metals, acetone, and naphthalene in one or more sludge samples collected from the front septic system exceeded the Act II soil to groundwater standard, which suggests that the sludge may be a potential source of groundwater contamination. The front septic system apparently receives wastewater from the front bathrooms and locker rooms and discharges to a leach field.

- Concentrations of chlorobenzene, bis(2-ethylhexyl)phthalates, and cadmium detected in the wastewater sample collected from the rear septic system slightly exceeded Act II groundwater standards.

- Concentrations of various RCRA metals, ethylbenzene, and xylenes in the sludge sample collected from the manhole located adjacent to the outside transformer exceeded the Act II soil to groundwater standards, which suggests that the sludge may be a potential source of groundwater contamination. The origin of the wastewater in this manhole was undetermined. It was also undetermined if effluent from this manhole is discharged to a leach field.

- Soil samples collected from the front loading dock area contained concentrations of SVOCs exceeding Act II non-residential ingestion standards and concentrations of metals exceeding the Act II soil to groundwater standards. The contaminants detected may be associated with construction fill or industrial activities in the general vicinity of the site and therefore, may represent background conditions.

- Concentrations of chromium and other metals in a surface soil sample collected from roof drain outfall No. 1 exceed Act II soil to groundwater standards.

- Arsenic, cadmium, chromium, and benzo(a)pyrene concentrations in one or more samples collected from the rear fence line exceeded Act II soil to groundwater standards. The contaminants detected may be associated with construction fill or industrial activities in the general vicinity of the site and therefore may represent background conditions.

- Concentrations of SVOCs and VOCs detected in the samples collected from SB-1 through SB-4 in the eastern truck yard were below the Act II soil to groundwater standards.

- Concentrations of VOCs, SVOCs, and metals detected in the sample collected from the groundwater well located at the south end of the drum storage pad were below the Act II groundwater standards.

- Analysis results of the potable water analysis indicate that the water meets applicable Pennsylvania drinking water standards.

- ACMs were identified in several locations. However, with the exception of the roof cooling tower packing material, future use of the building with respect to ACM can be addressed by implementing a Management Plan.

- The outside transformer does not contain PCBs as defined by the Toxic Substance and Control Act.

- Two of the fourteen capacitors identified on-site are marked as containing PCB fluid. The remaining twelve capacitors likely contain PCBs as well.

- To date, the PADEP has not reviewed the Underground Storage Tank closure report submitted in July 1995. A letter has been submitted to PADEP requesting their review.

- The Drum Storage, Bulk Storage, and Compound Rooms were cleaned and painted to conform with the condition of the rest of the facility. Liquid and solid wastes generated during the cleanup were disposed of by Rineco.

- Approximately 500 feet of aboveground piping containing a flammable compound material was removed from the facility. The flammable liquid was transported to Rineco for disposal. In addition, two storage tank vent pipes were removed from the Compound Room. Other process related piping was not observed at the facility.

- Approximately 30 tons of wood, metal, and miscellaneous solid waste were removed from the area surrounding the facility. These materials were either recycled or disposed of at an industrial landfill.

- Acidic liquid, oily water/rainwater, and PCB light ballasts were collected from outside the facility for transport to Rineco in September 1997. In addition, several pails of hydraulic/lube oils and one container of an unknown liquid were collected from inside the facility and will be transported to Rineco for disposal.

TABLE 1
American National Can
Morrisville, PA

Front Septic and Unidentified Manhole - Sludge Samples
(mg/Kg)

Sample ID:	SEP 1/2	SEP 3/4	TR-MH	Standards	
Location:	Front Septic Manholes 1 & 2	Front Septic Manholes 3 & 4	Manhole Near Transformer	Act II Soil to Groundwater	Toxicity Characteristic
VOCs					
Chlorobenzene	6.24	ND	ND	10	100
1,4 Dichlorobenzene	5.59	ND	ND	--	7.5
Acetone	ND	**999**	ND	0.03	--
Ethylbenzene	ND	ND	**417**	70	--
Xylenes	38.4	ND	**2460**	1000	--
SVOCs					
Naphthalene	**9.5**	ND	**193**	8	--
Fluoranthene	0.56	ND	ND	400	--
bis (2-Ethylhexyl) phthalate	3.84	0.766	9.33	400	--
TOTAL METALS					
Arsenic	**19.4 (6)**	**15.6 (6)**	**29.7 (6)**	5	5
Barium	**269 (6)**	85.2	**1790 (6)**	200	100
Cadmium	**10.6 (6)**	**2.54 (6)**	**8.66 (6)**	0.5	1
Chromium	**114 (6)(7)**	**80.8 (6)**	**854 (6)(7)**	10	5
Lead	472 (6)(7)	82 (6)	2970 (6)(7)	--	5
Mercury	0.55 (6)	0.17	0.18	--	0.2
Silver	5.56 (6)	1.64	2.33	--	5
TCLP METALS					
Arsenic	0.52	0.53	0.45	NA	5
Barium	0.73	0.44	3.07	NA	100
Cadmium	ND	ND	ND	NA	1
Chromium	ND	ND	0.037	NA	5
Lead	ND	ND	4.3	NA	5
Mercury				NA	0.2
Silver	ND	ND	ND	NA	5

Notes:

1. Samples collected on June 5, 1997
2. "ND" indicates none detected
3. "--" indicates no data
4. Boldface type indicates that the result exceeds the Act II Soil to Groundwater standard
5. Toxicity Characteristic" standard indicates a range between the published standard and 20x the standard
6. "(6)" indicates result exceeds the Toxicity Characteristic standard
7. "(7)" indicates result exceeds 20x the Toxicity Characteristic standard

TABLE 3
American National Can
Morrisville, PA

Front Loading Dock Area
Surface Soil Samples
(mg/Kg)

Sample ID:	SS-1 (0'-2')	SS-2 (0'-2')	SS-3 (0'-2')	Standards Act II Soil to Groundwater
SVOCs				
Isophorone	**12.6**	2.43	0.77	10
Dimethyl Phthalate	ND	**6.85**	ND	0.6
Acenapthene	1.2	1.1	ND	30
Fluorene	1.2	1.3	ND	400
Phenanthrene	24.8	22.9	5.52	80
Anthracene	2.74	2.49	ND	70
Fluoranthene	38.4	33.5	10.3	400
Pyrene	32.7	28.3	8.78	300
Benzo (a) anthracene	**11.2**	**9.33**	2.93	8 (1)
Chrysene	15.1	12.8	4.67	500
Benzo (b) fluoranthene	**13.8**	12	5.57	8 (1)
Benzo (k) fluoranthene	16.2	12.1	4.1	80 (1)
Benzo (a) pyrene	**16.9**	**13.5**	**4.98**	.8 (1)
Indeno (1,2,3-cd) pyrene	**10.3**	**8.06**	3.45	8 (1)
Dibenzo (a,h) anthracene	**4.77**	**3.58**	**1.45**	.8 (1)
Benzo (g,h,i) perylene	11.2	8.82	3.7	500
METALS				
Arsenic	**13.6**	**15**	**9.09**	4 (1)
Barium	84.4	65.6	75.8	200
Cadmium	**0.779**	0.485	0.39	0.5
Chromium	**28.4**	**25.4**	**33.4**	10
Lead	97.4	79.3	65	1000 (1)
Mercury	0.17	0.13	0.18	300 (1)
Silver	1.3	0.881	0.866	--
Total Petroleum Hydrocarbons	96	243	80	--
pH (S.U.)	7.0	7.0	7.0	--

Notes:

1. "(1)" indicates Act II Non-Residential Ingestion standard
2. "ND" indicates none detected
3. Samples collected on June 6, 1997
4. "--" indicates no data
5. Boldface type indicates Act II standard exceeded

TABLE 4
American National Can
Morrisville, PA

Eastern Fence Line and Roof Drain Outfall
Surface Soil Samples
(mg/Kg)

Sample ID:	SS-4 (0'-1.5')	SS-5 (0'-1.5')	SS-6 (0'-1.5')	SS-7 (0'-1.5') (NE outfall)	SS-8 (0'-1') (stressed areas)	Standards Act II Soil to Groundwater
SVOCs						
Phenanthrene	ND	ND	ND	ND	2.64	80
Fluoranthene	0.1	ND	ND	ND	5.3	400
Pyrene	ND	ND	ND	ND	4.81	300
Benzo (a) anthracene	ND	ND	ND	ND	2.05	8 (1)
Chrysene	ND	ND	ND	ND	2.72	500
Bezo (b) fluoranthene	ND	ND	ND	ND	2.98	8 (1)
Benzo (k) fluoranthene	ND	ND	ND	ND	2.55	80 (1)
Benzo (a) pyrene	ND	ND	ND	ND	**3.02**	.8 (1)
Indeno (1,2,3-cd) pyrene	ND	ND	ND	ND	1.5	8 (1)
Benzo (g,h,i) perylene	ND	ND	ND	ND	1.57	500
METALS						
Arsenic	**9.06**	2.75	**6.35**	**33**	**16.6**	4 (1)
Barium	44.2	26.1	28	45.5	114	200
Cadmium	ND	**0.69**	ND	**4.1**	**0.7**	0.5
Chromium	**13.8**	7.43	9.9	**154**	**42.9**	10
Lead	19	ND	6.5	47.9	45.2	1000 (1)
Mercury	0.07	0.02	0.01	0.04	0.08	300 (1)
Selenium	ND	ND	ND	**10.6**	ND	5
Silver	ND	0.92	ND	1.6	1.01	–

Notes:

1. "(1)" indicates Act II Non-Residential Ingestion standard
2. "ND" indicates none detected
3. Samples collected on June 6, 1997
4. "–" indicates no data
5. Boldface type indicates Act II standard exceeded

TABLE 5
American National Can
Morrisville, PA

Eastern Truck Yard Soil Borings
Soil Samples
(mg/Kg)

Sample ID:	SB-1-1 (0'-2')	SB-2-3 (4'-6')	SB-3-5 (8'-10')	SB-4-3 (4'-6')	Standards Act II Soil to Groundwater
VOCs					
Ethylbenzene	1.05	ND	ND	ND	70
Toluene	0.668	ND	ND	ND	100
Xylenes	6.87	0.006	ND	ND	1000
SVOCs					
Naphthalene	3.31	ND	ND	ND	8
Fluorene	3.68	ND	ND	0.488	400
Phenanthrene	8.64	ND	ND	0.926	80
Anthracene	0.754	ND	ND	ND	70
Fluoranthene	0.251	ND	ND	ND	400
Pyrene	1.84	ND	ND	ND	300
Chrysene	0.186	ND	ND	ND	500

Notes:
1. "ND" indicates none detected
2. Samples collected on June 17, 1997

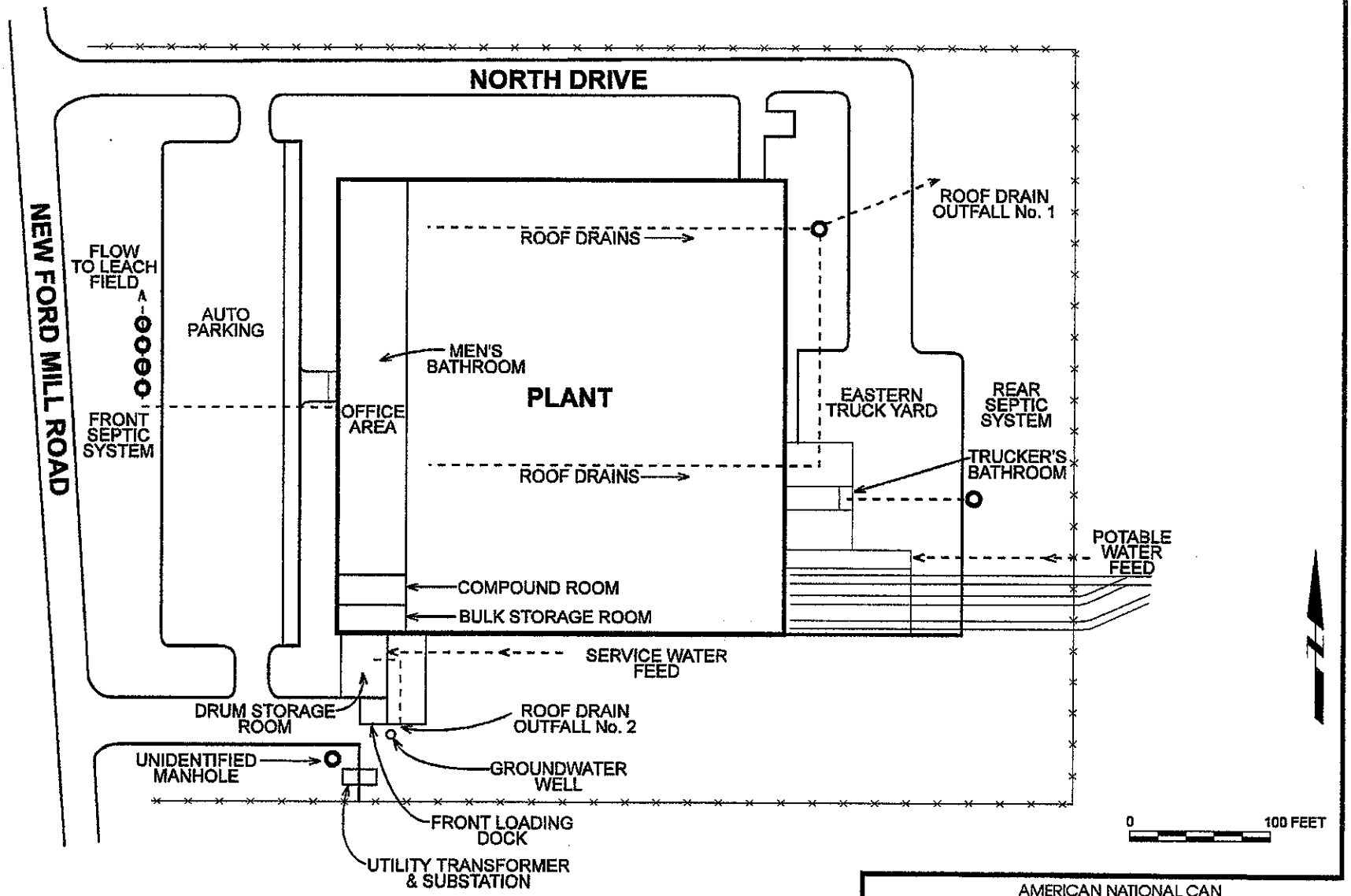
Table 2
American National Can
Morrisville, PA

Rear Septic System and Groundwater Well
Water Samples Collected on June 5, 1997
(mg/L)

Sample ID:	SEP 5	GW-Well	Standards	
Location:	Rear Septic	Groundwater Well	Act II Groundwater	Toxicity Characteristic
VOCs				
Chloromethane	0.025	ND	--	--
Chlorobenzene	**0.111**	ND	0.1	100
Chloroform	0.0026	ND	0.1	6
Benzene	0.0015	ND	0.005	0.5
1,4 Dichlorobenzene	0.001	ND	--	7.5
Methylene Chloride	ND	0.0025	--	--
SVOCs				
Phenol	0.014	ND	4	--
4-Methyl Phenol	0.04	ND	--	--
bis (2-Ethylhexyl) phthalate	**0.006**	0.0049	0.006	--
Butyl Benzyl Phthalate	ND	0.001	--	--
METALS				
Arsenic	ND	0.006	0.05	5
Barium	0.01	0.04	2	100
Cadmium	**0.009**	ND	0.005	1
Mercury	0.0001	ND	0.002	0.2

Notes:

1. "ND" indicates none detected
2. "--" indicates no data
3. Boldface type indicates Act II standard exceeded



O Septic/drainage Manholes

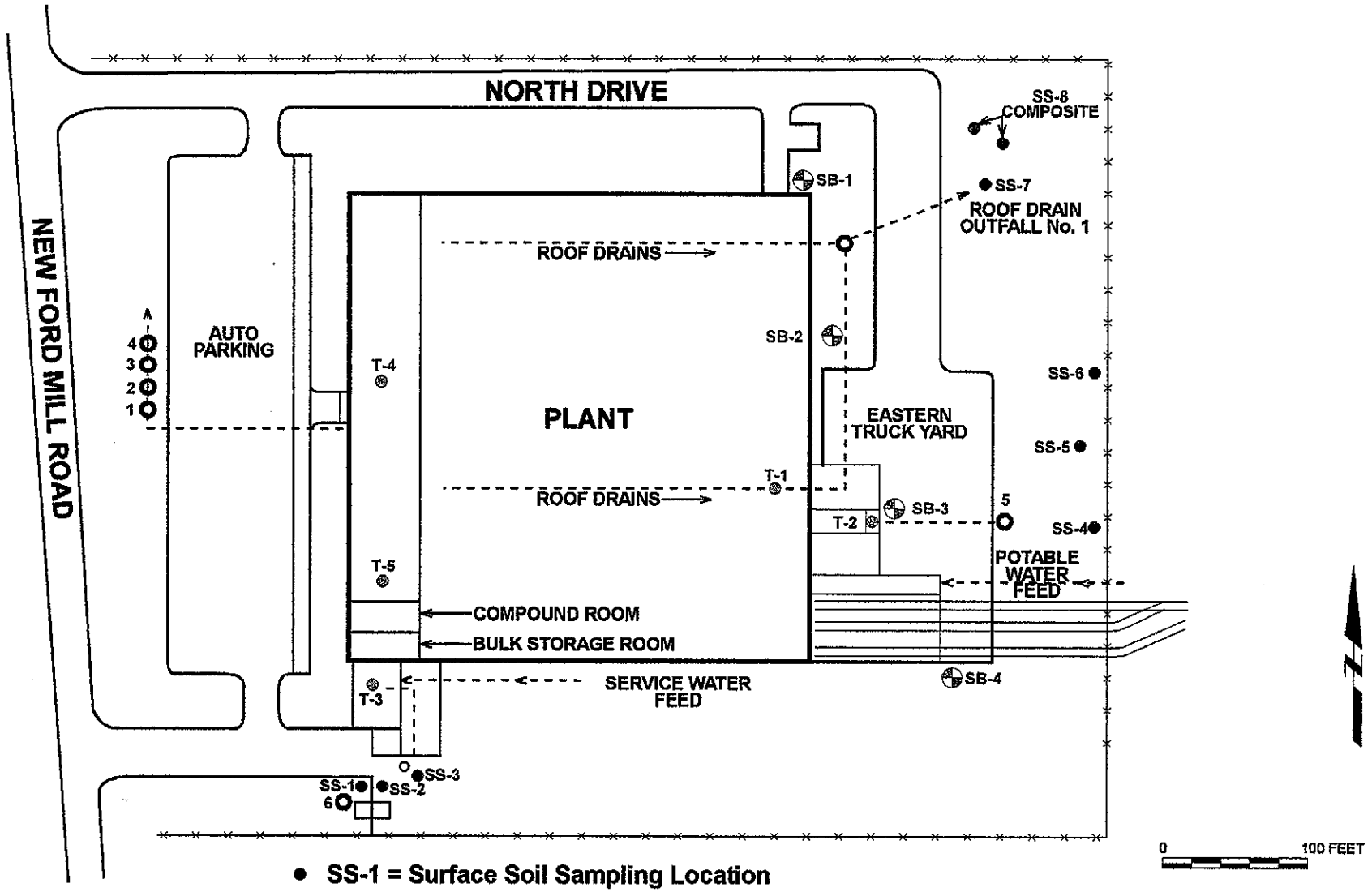
AMERICAN NATIONAL CAN

Site Plan

Levine-Fricke-Recon
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

Figure 01

Project No. 6184.00



- SS-1 = Surface Soil Sampling Location
- T-1 = Tracer Dye Testing Location
- SB-1 = Soil Boring Location
- Inferred Underground Piping
- Septic/drainage Manholes
- Groundwater Well

AMERICAN NATIONAL CAN

Site Plan Showing Sampling Locations

Levine-Fricke-Recon
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

Figure 02

Project No. 6184.00

CHAIN OF CUSTODY RECORD

Aqua Air A2 Analytical
25 Mathewson Drive Weymouth, MA 02189-2364
617 337-9334 / FAX 617 337-7642
5 Johnson Drive, P.O. Box 130, Raritan, NJ 08869
908 526-1000 / FAX 908 526-7886

WORK ORDER NO. 97-06-172

DUE DATE 5 Day TAT

COMPANY: LFR
82 Greenwood Ave
Madison NJ 07940
PHONE: (201) 408-9229 FAX #: (201) 822-2059
P.O.#: 6188.00 - GMR
CLIENT CONTACT: Gary Robinson
A² PROJECT #:

SAMPLE TYPE: 1. WATER, 2. SOIL, 3. SLUDGE, 4. OIL, 5. CHIPS, 6. WIPES, 7. AIR CASSETTE, 8. OTHER
CONTAINER TYPE: P - PLASTIC, G - GLASS, V - VOA

A² SAMPLE #	CLIENT SAMPLE IDENTIFICATION	SAMPLE TYPE	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING INFORMATION DATE	TIME	TECH	PRESERVATIVES	VOC by 8240	SVOC by 8270	RCRA Metals (Total)	TPH by 418.1	pH	VOC by 624	SVOC by 625	#	Sample pH at Login
1	SED 1/2	Sludge	Various	Glass	3	6/5/97	13:00	GMR		X	X	X						
2	SED 3/4	Sludge	Var	G	3	6/5/97	14:00	GMR		X	X	X						
3	TR-MH	Sludge	Var	G	3	6/5/97	15:00	GMR		X	X	X						
4	SS-1 (0-2')	Soil	Var	G	3	6/6/97	10:00	GMR		X	X	X	X	X				
5	SS-2 (0-2')	Soil	Var	G	3	6/6/97	10:40	GMR		X	X	X	X	X				
6	SS-3 (0-2')	Soil	Var	G	3	6/6/97	11:10	GMR		X	X	X	X	X				
7	SED-5	Water	Var	G/P	3	6/6/97	12:00	GMR				X			X	X		
8	SS-4 (0-1.5')	Soil	Var	G	3	6/6/97	12:30	GMR		X	X	X						
9	SS-5 (0-1.5')	Soil	Var	G	3	6/6/97	1300	GMR		X	X	X						
10	SS-6 (0-1.5')	Soil	Var	G	3	6/6/97	1320	GMR		X	X	X						
11	SS-7 (0-1.5')	Soil	Var	G	3	6/6/97	1355	GMR		X	X	X						
12	SS-8 (0-1.5')	Soil	Var	G	3	6/6/97	1410	GMR		X	X	X						

REPORT PACKAGES
- MWRA ☐
- NJPDES ☐
- RDR ☐
- MA. DEP ☐
- NJDEP (AIR) ☐
- COMPLIANCE ☒
- OTHER PA ☒

SAMPLED BY Gary Robinson	DATE: 6/6/97	RECEIVED BY	DATE: 6/10/97	Temperature upon receipt
	TIME: 1600		TIME: 1000	
RELINQUISHED BY:	DATE:	RECEIVED BY	DATE:	
	TIME:		TIME:	
RELINQUISHED BY:	DATE:	RECEIVED BY	DATE:	
	TIME:		TIME:	

SPECIAL INSTRUCTIONS
- ☐ RUSH DATE REQUIRED (ADDITIONAL COST MAY APPLY)
- ☐ REGULAR (10 BUSINESS DAYS) ☒ UST-TAT (5 DAY VERBAL)

Shade areas for laboratory use only.
Blue copy - Originator Retains
Pink copy - Shipper Retains
Submit White and Yellow copies to the Laboratory.

Aqua Air (A2) Analytical Corp.
25 Mathewson Drive
Weymouth, Massachusetts 02189
Telephone (617)337-9334
Fax (617)337-8237
MA-MA069, CT-PH0119, RI-A45, NH-201196-C, NJ-59744, CA-2050
SC-88013, NC-496, TN-02901, ME-MA069, NY-10982

Laboratory Report

----- Prepared for -----

Levine*Fricke*Recon
5 Johnson Drive
P.O. Box 130
Raritan NJ 08869-0130
GARY ROBINSON

Permit No.
Cust. P.O.
Project No. 6184.00-GMR

Subject:

Report Date	8/13/97
Date Received	6/10/97
Customer No.	0595-0
Work Order No.	9706-00172.
Invoice No.	LB 15919
Sampled Date	6/05/97
Sampled Time	00:00

Test Performed	Method	Results	Units	MDL	Tech	Analy. Date	Qualifier	Specification
1 SEP 1/2			Sample Date 6/05/1997					
Volatile Organics 8240					SH	6/13/97		
Benzene	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
Bromoform	EPA 8240	ND	ug/Kg	4000	SH	6/13/97		
Bromomethane	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
Carbon Tetrachloride	EPA 8240	ND	ug/Kg	4000	SH	6/13/97		
Chlorobenzene	EPA 8240	6240	ug/Kg	2000	SH	6/13/97		
Chloroethane	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
2-Chloroethyl vinyl ether	EPA 8240	ND	ug/Kg	10000	SH	6/13/97		
Chloroform	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
Chloromethane	EPA 8240	ND	ug/Kg	4000	SH	6/13/97		
Bromodichloromethane	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
1,2-Dichlorobenzene	EPA 8240	ND	ug/Kg	4000	SH	6/13/97		
1,3-Dichlorobenzene	EPA 8240	ND	ug/Kg	4000	SH	6/13/97		
1,4-Dichlorobenzene	EPA 8240	5590	ug/Kg	4000	SH	6/13/97		
1,1-Dichloroethane	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
1,2-Dichloroethane	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
1,1-Dichloroethylene	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
trans-1,2-Dichloroethylene	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
1,2-Dichloropropane	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
cis-1,3-Dichloropropene	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
trans-1,3-Dichloropropene	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
Ethylbenzene	EPA 8240	ND	ug/Kg	4000	SH	6/13/97		
Methylene Chloride	EPA 8240	ND	ug/Kg	2000	SH	6/13/97		
1,1,2,2-Tetrachloroethane	EPA 8240	ND	ug/Kg	4000	SH	6/13/97		
Acrylonitrile	EPA 8240	ND	ug/Kg	125	SH	6/13/97		
Acetone	EPA 8240	ND	ug/Kg	125	SH	6/13/97		
1,4-Dichloro-2-butene	EPA 8240	ND	ug/Kg	25	SH	6/13/97		

---- Continued on Next Page ----